

Notice of Allowability	Application No.	Applicant(s)	
	09/404,704	HOKAO, TOMOAKI	
	Examiner	Art Unit	
	Dung X Nguyen	2631	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 03 December 2004.
2. ☒ The allowed claim(s) is/are 2 - 35, 37 - 55, 57, 59 - 62, and 64, renumbered as 1 - 59, respectively.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☒ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☒ to Paper No./Mail Date 8.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>09/13/04</u> 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|

Response to Arguments

1. Applicant's arguments, filed on December 03, 2004 have been fully considered and are persuasive.

Allowable Subject Matter

2. **Claims 2 – 35, 37 – 55, 57, 59 – 62, and 64 are allowed, re-ordered as 2, 30, 3, 64, 4, 5, 31, 6 - 11, 19, 13, 15, 27, 32, 12, 14, 16, 20, 17, 21, 28, 33, 18, 22, 23 – 25, 29, 34, 26, 35, 37 – 46, 48, 50, 52, 59, 47, 49, 51, 53, 60, 54, 61, 55, 57, and 62 and re-numbered as 1 – 59, respectively.** The dependent new numbers have been changed according to the changing numbers as:

Regarding claim 30, "2" as recited on line 1 has been changed to "1";

Regarding claim 31, "5" as recited on line 1 has been changed to "7";

Regarding claim 64, "3" as recited on line 1 has been changed to "4";

Regarding claim 10, "9" as recited on line 1 has been changed to "11";

Regarding claim 11, "9" as recited on line 1 has been changed to "11";

Regarding claim 13, "9" as recited on line 1 has been changed to "11";

Regarding claim 15, "9" as recited on line 1 has been changed to "11";

Regarding claim 27, "9" as recited on line 1 has been changed to "11";

Regarding claim 32, "9" as recited on line 1 has been changed to "11";

Regarding claim 12, "10" as recited on line 1 has been changed to "12";

Regarding claim 14, "10" as recited on line 1 has been changed to "12";

Regarding claim 16, "10" as recited on line 1 has been changed to "12";

Regarding claim 20, "10" as recited on line 1 has been changed to "12";

Regarding claim 17, "15" as recited on line 1 has been changed to "13";

Regarding claim 21, "15" as recited on line 1 has been changed to "13";

Regarding claim 28, "15" as recited on line 1 has been changed to "13";

Regarding claim 33, "15" as recited on line 1 has been changed to "13";

Regarding claim 18, "16" as recited on line 1 has been changed to "21";

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Regarding claim 22, "16" as recited on line 1 has been changed to "21";
Regarding claim 24, "23" as recited on line 1 has been changed to "29";
Regarding claim 25, "23" as recited on line 1 has been changed to "29";
Regarding claim 29, "23" as recited on line 1 has been changed to "29";
Regarding claim 34, "23" as recited on line 1 has been changed to "29";
Regarding claim 26, "24" as recited on line 1 has been changed to "30";
Regarding claim 35, "27" as recited on line 1 has been changed to "31";
Regarding claim 45, "44" as recited on line 1 has been changed to "43";
Regarding claim 46, "44" as recited on line 1 has been changed to "43";
Regarding claim 48, "44" as recited on line 1 has been changed to "43";
Regarding claim 50, "44" as recited on line 1 has been changed to "43";
Regarding claim 52, "44" as recited on line 1 has been changed to "43";
Regarding claim 59, "44" as recited on line 1 has been changed to "43";
Regarding claim 47, "45" as recited on line 1 has been changed to "44";
Regarding claim 49, "45" as recited on line 1 has been changed to "44";
Regarding claim 51, "45" as recited on line 1 has been changed to "44";
Regarding claim 53, "45" as recited on line 1 has been changed to "44";
Regarding claim 60, "45" as recited on line 1 has been changed to "44";
Regarding claim 54, "52" as recited on line 1 has been changed to "48";
Regarding claim 61, "52" as recited on line 1 has been changed to "48";
Regarding claim 57, "55" as recited on line 1 has been changed to "57".

The following is an examiner's statement of reasons for allowance:

Regarding to the claimed invention, the prior art of record fails to show or render obvious of a method and its corresponding apparatus for a receiving circuit having a speech/no-speech signal detector to detect whether there is a speech signal or not based on data inversely diffused by finger receivers. A clock controller for controlling operation of the finger receivers based on a detected result from the speech/no-speech signal detector.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Contact Information

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (571) 272-3010. The examiner can normally be reached on Monday through Friday from 8:00 AM to 17:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour Mohammad H. can be reached on (571) 272-3021. The fax phone numbers for this group is (571) 273-3021.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2600.

DXN

December 20, 2004

M. G/-
MOHAMMED GHAYOUR
SUPERVISORY PATENT EXAMINER

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Honda, Keskitalo et al., Miller to provide wherein the detecting means comprises a plurality of detecting means associated with the plurality of finger receivers, respectively, for saving the power consumption.

5. **Claims 23 and 34 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Honda (US patent # 5,970,084), Keskitalo et al. (US patent # 6,091,788), further in view of Mimura (US patent # 6,021,123).

Regarding claim 23, the limitations are analyzed in the same manner set forth as claim 9, plus, Honda and Keskitalo et al. differs from the invention that they do not show the step of a decoder for decoding the data synthesized by the synthesizer.

However, Mimura teaches (figure 2) that Viterbi decoder (30) for decoding the data synthesized by the synthesizer (28) via de-interleave circuit (29) (column 7, lines 21 – 30).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Honda, Keskitalo et al., and Mimura so as to ensure the desired control means based on the detecting means that based on the decoding results for saving the power consumption.

Regarding claim 34, as followed by the limitations analyzed in claim 23, Honda further discloses its invention is used for a mobile communication receiver (abstract).

6. **Claim 24 is rejected** under 35 U.S.C. 103(a) as being unpatentable over Honda (US patent # 5,970,084), Keskitalo et al. (US patent # 6,091,788), Mimura (US patent # 6,021,123), further in view of Miller (US patent # 5,608,722).

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Regarding claim 24, as followed by the limitations analyzed in claim 23, Honda, Keskitalo et al., and Mimura differs from the invention that they do not show wherein the control means comprises means for operating all the finger receivers if a speech signal is detected by the detecting means.

However, Miller discloses (figure 2) that controller (78) for controlling all receivers (62, 72) being operated if a voice signal is detected (column 16, lines 36 – 48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Honda, Keskitalo et al., Mimura, and Miller for improving the communication system.

7. **Claims 44 and 46 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Keskitalo et al. (US patent # 6,091,788).

Regarding claim 44, Keskitalo et al. discloses (figure 6a):

- Receivers 600, 602, 604 (column 10, lines 22 – 35) for providing means of detecting and searching useful signal components and giving their parameters (column 10, lines 42 – 43);
- Controller 612 for controlling receivers 600, 602, 604 based on the detected result (column 10, lines 44 – 51).

Keskitalo et al. differs from the instant claimed invention that it does not show the step of detecting whether there is a speech signal or not based on the decoded data for detailing the useful data.

However, based on the preceding information of Keskitalo et al., it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Keskitalo et al. to show the step of detecting whether there is a speech signal or not based on the decoded data for detailing the useful data, and of course, all times.

Regarding claim 46, the limitations are analyzed in the same manner set forth as claim 44.

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7. **Claims 45, 47 – 49, and 55 are rejected** under 35 U.S.C. 103(a) as being unpatentable over Keskitalo et al. (US patent # 6,091,788), in view of Miller (US patent # 5,608,722).

Regarding claim 45, as followed by the limitations analyzed in claim 44, Keskitalo et al. differs from the instant claimed invention that it does not show the step of wherein all of the receivers are operated if a speech signal is detected.

While, Miller discloses that all receivers are operated if a voice signal is detected (column 16, lines 36 – 48).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Keskitalo et al. and Miller to fulfill the limitations of the instant claimed invention for improving the communication system.

Regarding claim 47, the limitations are analyzed in the same manner set forth as claim 45.

Regarding claim 48, as followed by the limitations analyzed in claim 44, Keskitalo et al. differs from the instant claimed invention that it does not show the step of wherein at least two of the receivers are operated if a speech signal is detected.

While, Miller discloses that all receivers are operated if a voice signal is detected (column 16, lines 36 – 48). Based on that information, one is able to provide exact two receivers are operated if voice signal is detected.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to combine Keskitalo et al. and Miller to fulfill the limitations of the instant claimed invention for improving the communication system.

Regarding claim 49, the limitations are analyzed in the same manner set forth as claim 48.

Regarding claim 55, the limitations are analyzed in the same manner set forth as claim 45.

Allowable Subject Matter

8. **Claims 11 – 14, 17 – 22, 25 – 31, 35, 50 – 54, and 57, 59 - 61 are objected** to as being dependent upon a rejected base claim or minor informalities, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. **Claims 2 – 8, 37 – 43, 62, and 64 are allowed.** The following is a statement of reasons for the indication of allowable subject matter:

Regarding to the claimed invention, the prior art of record fails to show or render obvious of a receiving circuit, which substantially is capable of reducing a consumed current when received data contains no speech signal comprising an antenna and a radio unit for receiving a signal via a radio link, a plurality of finger receivers for inversely diffusing the signal received by antenna and the radio unit in association with respective multiple paths, a synthesizer for synthesizing signals inversely diffused by the finger receivers, and means for controlling the number of finger receivers, based on whether a speech signal or data containing in the signal received by antenna and radio unit. If the speech signal is detected then the controller controls all the receivers to operate, if no speech signal is detected, then the controller controls only one or two of the finger receivers to operate based on other factors such as supply of a clock, number of base stations, soft hand-over mode.

Contact Information

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung X. Nguyen whose telephone number is (703) 305-4892. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Ghayour Mohammad H. can be reached on (703) 306-3034. The fax number for this group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

DXN

June 01, 2004